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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER

STARKS, W

ART UNIT	PAPER NUMBER
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2762

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DATE MAILED:

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 08/888,361	Applicant(s) Barson, Paul Colin et al
	Examiner Wilbert L. Starks, Jr.	Group Art Unit 2762

Responsive to communication(s) filed on Jul 3, 1997

This action is FINAL.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

Claim(s) 1-22 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

Claim(s) _____ is/are allowed.

Claim(s) 1-22 is/are rejected.

Claim(s) _____ is/are objected to.

Claims _____ are subject to restriction or election requirement.

Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on _____ is/are objected to by the Examiner.

The proposed drawing correction, filed on _____ is approved disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All Some* None of the CERTIFIED copies of the priority documents have been received.

received in Application No. (Series Code/Serial Number) _____.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). 3

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

-- SEE OFFICE ACTION ON THE FOLLOWING PAGES --

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DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Great Britain on 21 JAN 97. It is noted, however, that applicant has not filed a certified copy of the 9701195.1 application as required by 35 U.S.C. 119(b).

Specification

2. The specification is objected to because some of the drawings (figs. 5, 14, and 18) are not mentioned and explained in the specification. Correction is required.

Claim Rejections - 35 USC § 112

3. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Ostensibly, it recites that it is a method claim, but in structure and content, it appears to be an apparatus claim. Correction is required.

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Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

the invention as disclosed in independent claims 1, 12, 13, and 22 is directed to non-statutory subject matter. While the claims are in the technological arts, they are not limited to practical applications in the technological arts. The claims are series of steps to be performed on a computer, but they disclose no manipulation of data or data representing physical objects or activities to achieve a practical application (pre-computer activity), nor do they disclose any independent physical acts being performed by the invention (post-computer activity). The claims merely manipulate abstract ideas in general without limitation to a practical application. Ultimately, numbers are returned “without practical application in the arts”, as defined under 35 U.S.C. §101 analysis. Dependent claims 2-11 and 14-21 do not cure the defect in the claims independent claims 1, 12, 13, and 22. On this basis, claims 1-22 are rejected under 35 USC 101.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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2. Claims 1-8 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Hunt et al. (U.S. Patent Number 5,365,574; Dated 11/15/94.)

Specifically, the method of claim 1 is anticipated by Hunt et al col. 7-8.

Claim 2's plurality of possible formats is anticipated by Hunt et al col. 8, lin. 10-19.

Claim 3's length of the signature format is anticipated by Hunt et al col. 7, lin. 35-42.

Claim 4's parameter representing events within a time period is anticipated by Hunt et al col. 7, lin. 17-20.

Claim 5's proportion of events parameter is anticipated by Hunt et al col. 7, lin. 17-26.

Claim 6's method of creating a signature is anticipated by Hunt et al col. 7, lin. 17-30.

Claim 7's "anomaly detector" is anticipated by Hunt et al fig. 3, element 66b.

Claim 8's neural network-based anomaly detector is anticipated by Hunt et al col. 7, lin. 64-68; col. 9, lin. 28-47.

Claim 12's computer system is anticipated by Hunt et al col. 7, lin. 14-16.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 9, 13-19, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunt et al. (U.S. Patent Number 5,365,574; Dated 11/15/94.) in view of Peterson et al. (U.S. Patent Number 5,067,095; Dated 11/19/91).

Hunt et al discloses the conventional use of neural networks to extract characteristic signatures from voice data.

Hunt et al, however, does not expressly disclose the use of a time averaged feature vector, as disclosed in claims 9, 13-19 and 22. Those claims are identical to those rejected above but for this one feature in each of them.

Peterson et al discloses that the use of a time averaged feature vector produces a higher level of confidence in the data.

It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to use the time averaged feature vector from Peterson et al in Hunt et al.

Motivation -- A higher level of confidence in the data would have been a highly desirable feature in the neural network art due to its higher accuracy and Peterson et al recognizes that a higher level of confidence in the data would be expected when the time averaged feature vector of Peterson et al is utilized in the art of Hunt et al.

Therefore, it would have been obvious, to one of ordinary skill in the art, to combine Peterson et al with Hunt et al to obtain the invention as specified in claim 9, 13-19, and 22.

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5. Claims 10, 11, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunt et al. (U.S. Patent Number 5,365,574; Dated 11/15/94.) in view of Peterson et al. (U.S. Patent Number 5,067,095; Dated 11/19/91).

Hunt et al discloses the conventional use of neural networks to extract characteristic signatures from voice data.

Hunt et al, however, does not expressly disclose the use of a predictive model.

Peterson et al discloses that the use of a predictive model produces a more accurate output.

It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to use the predictive model from Peterson et al in Hunt et al.

Motivation -- A more accurate output would have been a highly desirable feature in the neural network art due to its increased efficiency and Peterson et al recognizes that a more accurate output would be expected when the predictive model of Peterson et al is utilized in the art of Hunt et al.

Therefore, it would have been obvious, to one of ordinary skill in the art, to combine Peterson et al with Hunt et al to obtain the invention as specified in claims 10, 11, 20, and 21.

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Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A. Johnson et al. (U.S. Patent Number 5,345,595; Dated 09/06/94) discloses an apparatus and method for detecting fraudulent telecommunication activity.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wilbert L. Starks, Jr. whose telephone number is (703) 305-0027. Alternatively, inquiries may be directed to Supervising Patent Examiner Tariq Hafiz whose telephone number is (703) 305-9643.

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March 17, 1999



Tariq R. Hafiz
Supervisory Patent Examiner
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